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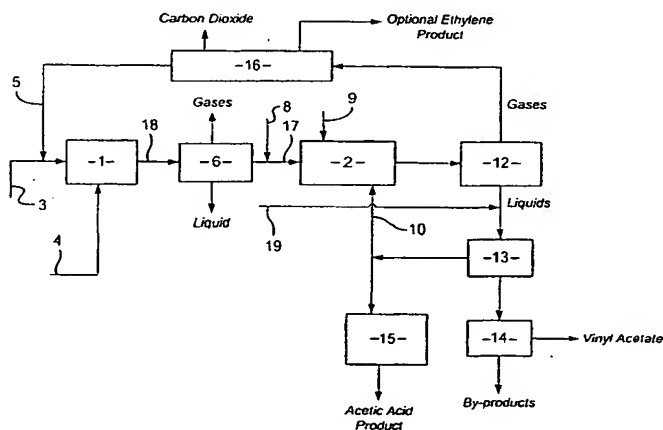
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Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,

[Continued on next page]

(54) Title: INTEGRATED PROCESS FOR THE MANUFACTURE OF ALKENYL CARBOXYLATES



(57) Abstract: An integrated process for the production of an alkenyl carboxylate, such as vinyl acetate which process comprises the steps of (a) contacting in an oxidation reaction zone a C₂ to C₄ alkane, such as ethane, a molecular oxygen-containing gas, optionally the corresponding alkene and optionally water, in the presence of a catalyst to produce a stream comprising alkene, carboxylic acid and water; (b) separating at least a portion of the stream from step (a) into a fraction comprising the alkene and a fraction comprising the carboxylic acid and water; (c) contacting in a second reaction zone at least a portion of said alkene fraction produced in step (b), a carboxylic acid and a molecular oxygen-containing gas, in the presence of a catalyst to produce a product stream comprising an alkenyl carboxylate, water and carboxylic acid; (d) separating at least a portion of the product stream from step (c) and at least a portion of the carboxylic acid and water fraction produced in step (b) by azeotropic distillation into an overhead fraction comprising the alkenyl carboxylate and a base fraction comprising the carboxylic acid; (e) recovering the alkenyl carboxylate from the overhead fraction separated in step (d).

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CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

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Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BEILSTEIN Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 143 921 A (KARIM KHALID ET AL) 7 November 2000 (2000-11-07) *abstract; figs. 1 and 2; column 2, lines 40-57; columns 3-6 (in particular, column 5, lines 64-67 and column 6, lines 1-10); the examples and the claims*	1-18
X	US 6 040 474 A (WATSON DERRICK JOHN ET AL) 21 March 2000 (2000-03-21) *abstract; column 2, lines 50-67; columns 3-4; column 8, lines 64-68; column 9, lines 1-37 and the claims*	1-18
X	EP 0 985 656 A (BP CHEM INT LTD) 15 March 2000 (2000-03-15) *abstract; page 2, lines 28-58; page 3, in particular, lines 35-38 and 51-58; page 4, lines 1-27 and claims 1 and 2*	1-18
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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